February 2004
Exterior Building Conditions Inspection Report:
Laurel Train Station Building
Laurel, DE

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HFA Project # 2003.010

On January 14, 2004 I observed the existing conditions of the Laurel Train Station Building in Laurel, DE. Jeffery Levine of 116 Technologies accompanied me. Jeffery was responsible for examining the existing roof and roof related components of the building. His report is separate, but attached to this report.

The purpose of this report is to document observed conditions, and where required, to provide recommendations for addressing exterior problem conditions

REPORT ON EXISITNG CONDITIONS

• Exterior Masonry

Most of the exterior brick masonry walls appear to be original and to be in excellent condition with little or no damage to the masonry or mortar joints. On both the platform side and the side opposite to the platform, the original openings for the freight doors have been filled with exposed brick on concrete masonry. The platform side is completely filled with new masonry. The opposite side has a single wood door to match the other raised panel wood doors on the station. *(See Photos 1 & 2)*

Photo-1

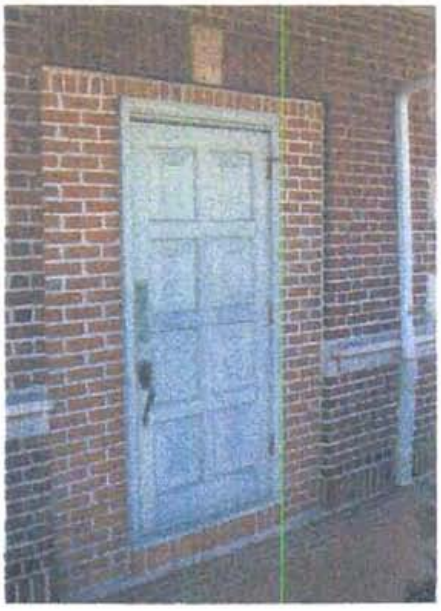


Photo-2

Photo-3

Photo-4

The exterior masonry wall has a continuous stone belt course and ledge located at the windowsill elevation. The building also has stone quoins at each of the outside corners and stone keystones above each door and window opening. This stone appears to be in excellent condition and only in need of cleaning. Likewise, the existing stone thresholds are intact and, although worn, are only in need of cleaning. *(See Photos 3 & 4)*

The general appearance of the exterior masonry could be improved with a good power washing. Any such effort should be accompanied by proper protection against driving water into the joints between wood and masonry, such as door and window frames and up into the bead board ceiling of the exterior roof overhang.

• Exterior Wood Windows and Doors

All wood windows and frames and doors and frames are in good condition. However, all are in serious need of maintenance. The bay window frame and window units facing the southeast are in the greatest need. They appear to receive more direct exposure to sun and rain than do any of the other windows most of which are protected by the overhanging roof. All of the bay window sashes have significant weathering of all wood frames and sills and glass glazing. These bay windows should have all of the loose glazing grout removed and replaced.
(See Photos 4, 5 & 6)

Photo-4

Photo-5

Photo-6

Of the five existing wood doors, only one appears to require any significant repair. In this single door, one of the raised panels is damaged (cracked or split through). It does not appear to be affecting the structural integrity of the door and seems to be repairable. *(See Photo 7)*

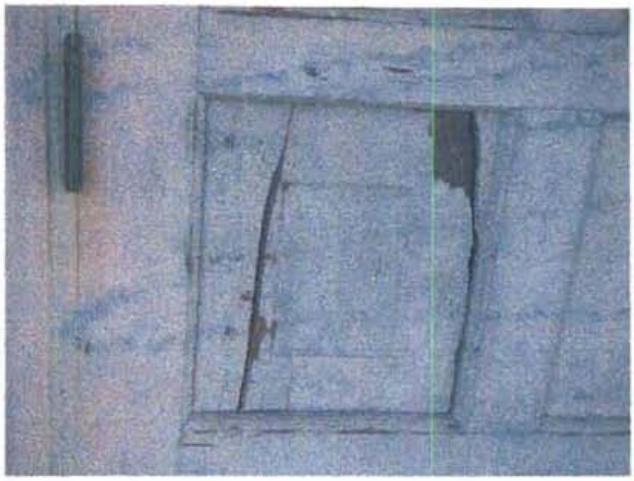


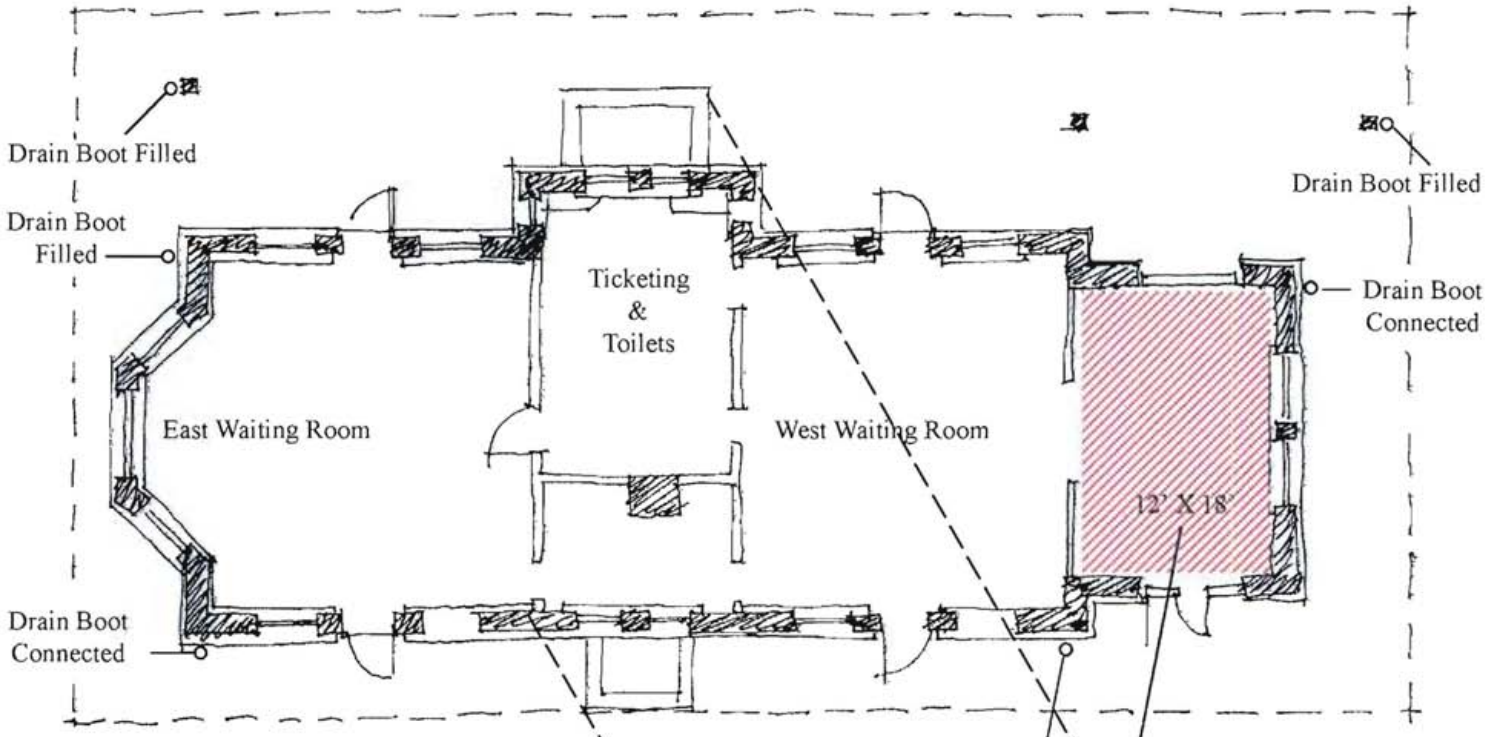
Photo-7

All frames, windows and doors, are in need of joint caulking between wood and masonry surfaces. Again, the exposed bay window unit seems to have weathered the worst.

The bay window unit appears to have original galvanized metal capping of all of the wood structure. A significant portion of this capping is now without paint. Much of the paint on these metal surfaces is badly peeling.

All of the windows and doors and their frames are in good condition, but requiring caulking and painting.

Without testing the existing paint, we cannot be sure that the paint is lead based. However, given the age of the station, the chances are very great that the paint is lead based. Therefore, removal of the existing paint must be performed according to environmental safety standards. Likewise, the original color of the paints will only be revealed as a result of a scientific paint analysis.



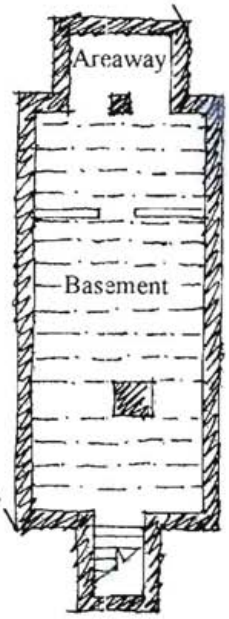
First Floor Plan *(No Scale)*

• Freight Room Floor:

The original floor elevation of the Freight Room was at the platform level, approximately 7-8" below the elevation of the First Floor. Sometime in the past the original Freight Room floor level was raised, presumably through the use on wood sleepers and floor decking. This floor elevation now matches the elevation of the rest of the First Floor. However, the floor surface is soft and spongy. Given the previous termite infestation and damage, I suspect termites or water damage to this flooring system and suggest the complete replacement of both the sleeper joists and the floor decking.
(See First Floor Plan drawing)

• Termite Damage to the First Floor, Floor Beams located in the Basement Ceiling.

As result of visual inspection it appears that the termites gained access to the interior of the Station areas by way of the exposed ends of wood joists located in the Basement ceiling. These floor joists are pocketed into the masonry foundation walls, walls that form the perimeter of the small Basement area. No destructive investigations were performed to seek to expose the ends of any joists. It appears that most, if not all, of the wood floor joists have been damaged by termites. There is also no visual evidence



Basement Plan *(No Scale)*

that the infestation was chemically treated. Normally one would see evidence of drilled probes performed to confirm infestation and to determine the degree of damage to the wood members. None was noted. Also chemically treated structures generally have 'date of treatment' chalked on beams and joist. None was noted. Laurel Superintendent of Public Works, Danny McCumber, was asked if he was aware of any chemical treatment of the building. He was not aware of any.

Without additional testing of the wood joists it is not possible to conclude that they are sound and satisfactory. I believe a number are not suited to supporting any significant new and additional floor loads. In addition, I believe that without a chemical treatment of these joists and the removal of the joists ends from their pockets in the Basement masonry walls, the chances are great that they will again provide a pathway for the re-infestation of the Station. All of these joists should have their pocketed ends cut off and removed from their wall pockets. The pockets should be filled with grout to prevent the entry of termites.

A new steel angle ledge should be bolted to the masonry wall to support the original wood joists. In addition each joist should be sistered on both sides with new 2X10 pressure treated lumber.
(See Basement Plan drawing)

• Termite Damage to the First Floor interior structure
There is significant termite damage to the interior wood studs located in the center of the building. Some wood studs show damage as high as the ceiling (10-12'). However, given the large size of the original wood studs and the minimal load currently bearing on these studs I do not believe they require replacement. However, once work proceeds on the interior, the studs that remain should be 'sistered' and left in place.
(See Photos 8 & 9)

There is also strong evidence that the termites were active at the intersection of baseboard and floor in most of the building. Damage from this activity does not appear to be major.

The Station should be treated for termites and a protective barrier placed around its perimeter. This treatment should include pressure injection of chemicals into the remaining ends of the floor joists.

Photo-8

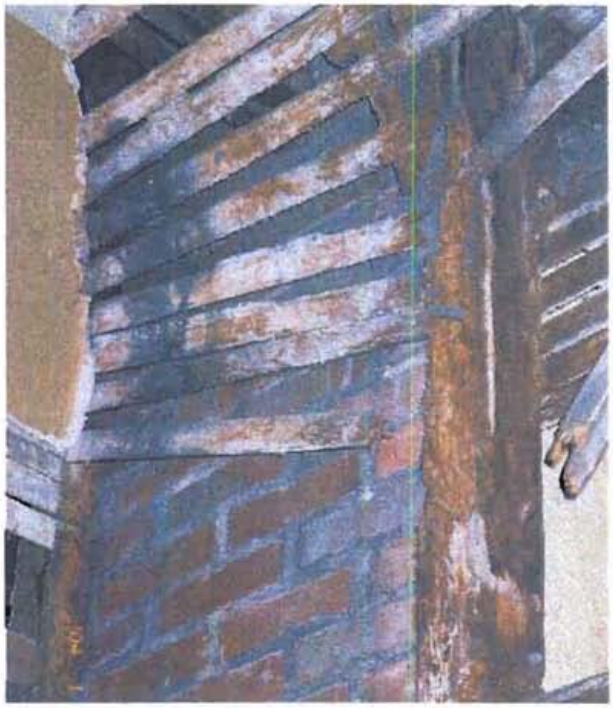


Photo-9

• **Overhanging Roof Soffit**

The condition of the overhanging soffit is undetermined. The soffit is entirely covered with vinyl soffit material. The original soffit, where it can be barely glimpsed through the 2" spaces between the over hanging support brackets on either side of the Platform Station Ticket window, appears to be wood bead board painted to match the green paint on other exterior painted surfaces of the building. *(See Photo 10)* Given the fact that the soffit is covered with vinyl soffit material makes me suspicious that it was installed so as to eliminate the need for any further attention to repairing and repainting of damaged soffit areas.

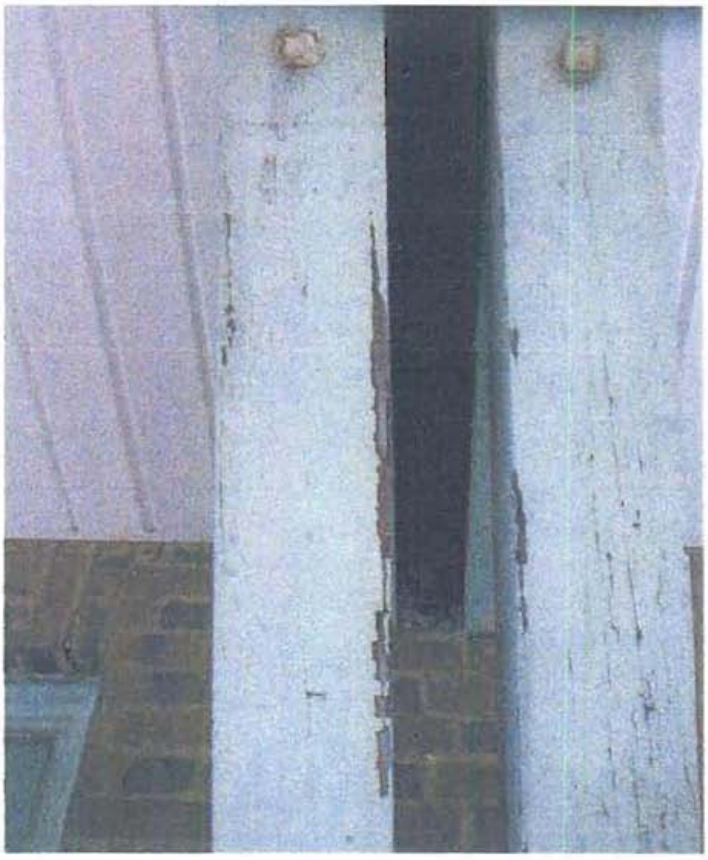


Photo-10

Photo-11

• Brick Platform

The brick paving surrounding the station area is in fair condition. A section of the platform pavers have been removed and paved with concrete. Otherwise the brick pavers appear to be stable and only in need of minor grouting, and the removal of storm drains that discharge directly onto the concrete and brick surfaces. *(See Photo 11)*

• Structural Post Platform Connections

There are three exterior structural wood posts along the exterior platform. These posts are wood timbers measuring approximately 7" square. These posts are attached at the platform level with steel brackets which themselves extend from concrete foundation stems, stems which themselves extend approximately 2" above the platform surface. The two end column stems have storm drain boots cast into them. Both boots are currently filled with concrete. *(See Photos 12, 13, 14 & 15)* Roof conductors now discharge roof water directly onto the top of the stem or onto the surrounding brick platform. They are not tied into any storm drainage system.

Photo-12

Photo-13

Photo-14

Photo-15

One of the wood posts clearly needs repair at its bottom. Years of neglect have contributed to its rotting condition. One corner of one of the concrete stems has broken off exposing the badly rusted steel post connectors. These broken stems, rusting steel post connectors and the rotting wood posts need repair soon. While none of these conditions warrant alarm about the structural integrity of the building, to leave these items unattended is to invite serious problems in the future.

• Exterior Lighting

There are a number of exterior light fixtures that are mounted on the surface of the soffit. Most of these fixtures appear to be in serviceable condition, requiring only new bulbs and electrical power. *(See Photos 16 & 17)*

Photo-16

Photo-17

• Building Utilities

- Electric Power: It appears that the original electrical power supply lines came through a 4" C.I. pipe extending from the platform wall in the basement. This does not appear to have been an active source of electrical power for some many years. In fact this C.I. pipe may be part of the source of water in theBasement since it was observed leaking water on 01/14/04. *(See Photo 18)*

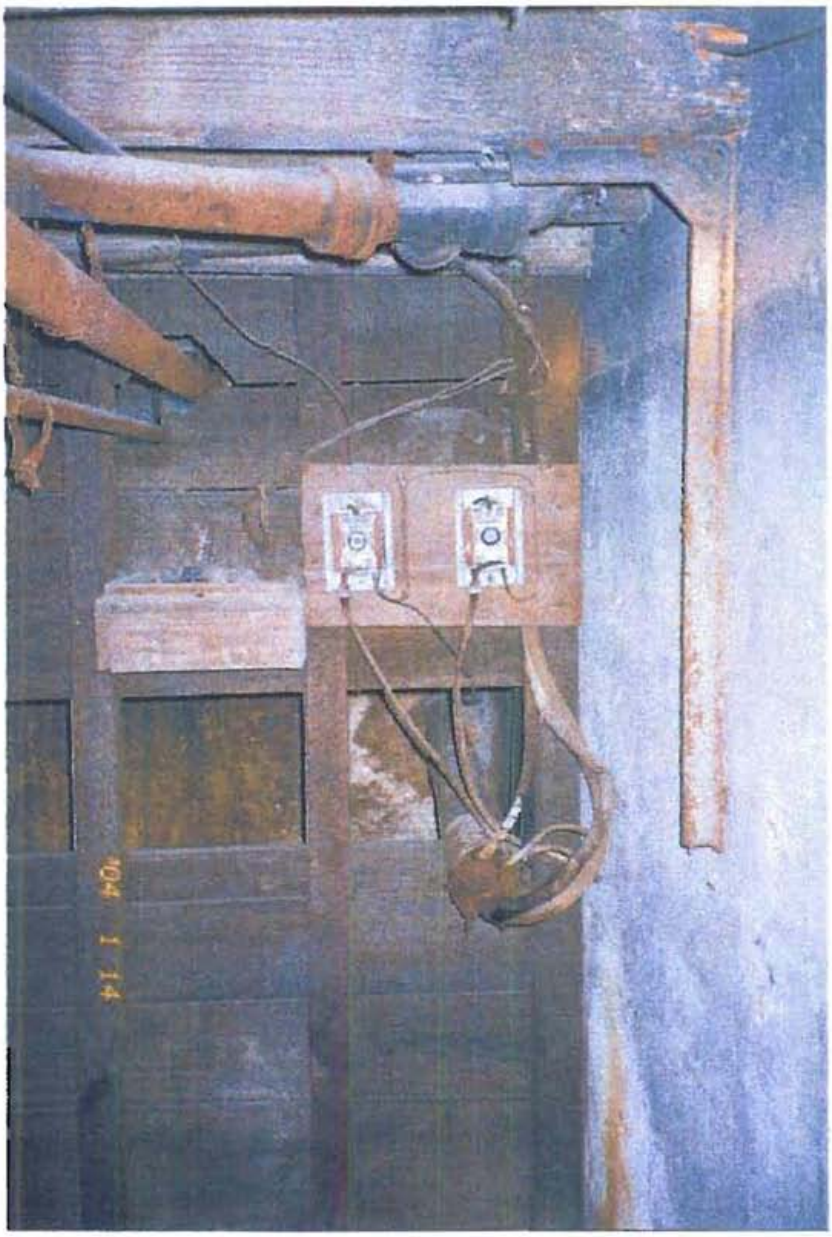


Photo-18

The most recent electrical power supply (disconnected) seems to have come from a power pole located outside the north corner of the old Freight Room. There is a main power drop to the Station into a main electrical panel box currently located on the north inside corner wall of the old Freight Room. *(See Photo 19)*
From this panel a supply line was run through a steel conduit to the Basement where it was connected to an abandoned electric water heater.

- Telephone: Telephone and communication lines extend from the east wall of the Basement, on the left side (facing) of the stair opening.*(See Photo 20)*

- Gas Service: There does not appear to be any gas service to this building.

- Oil Tanks: There does not appear to be any oil tanks in or around this building.

- Water: Water service comes into the Basement through the east wall of the Basement, on the left side (facing) of the stairway.*(See Photo 20)*

- Sanitary Sewer System: Sanitary sewer lines, 4" diameter, extend into the Basement through the east wall of the Basement, on the right side (facing) of the stairway. *(See Photo 21)*

- Storm sewer System: The location of any storm sewer system was not determined.

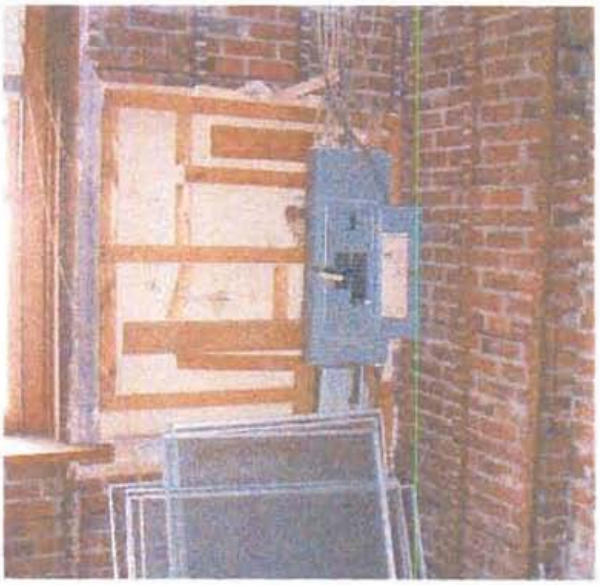


Photo-19

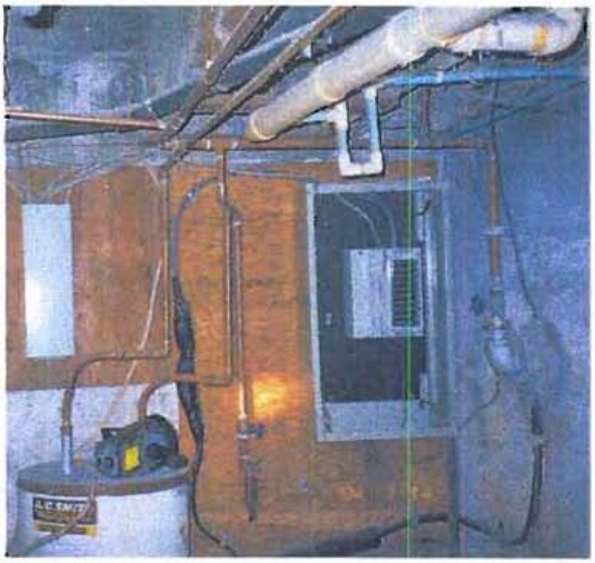


Photo-20

Photo-21

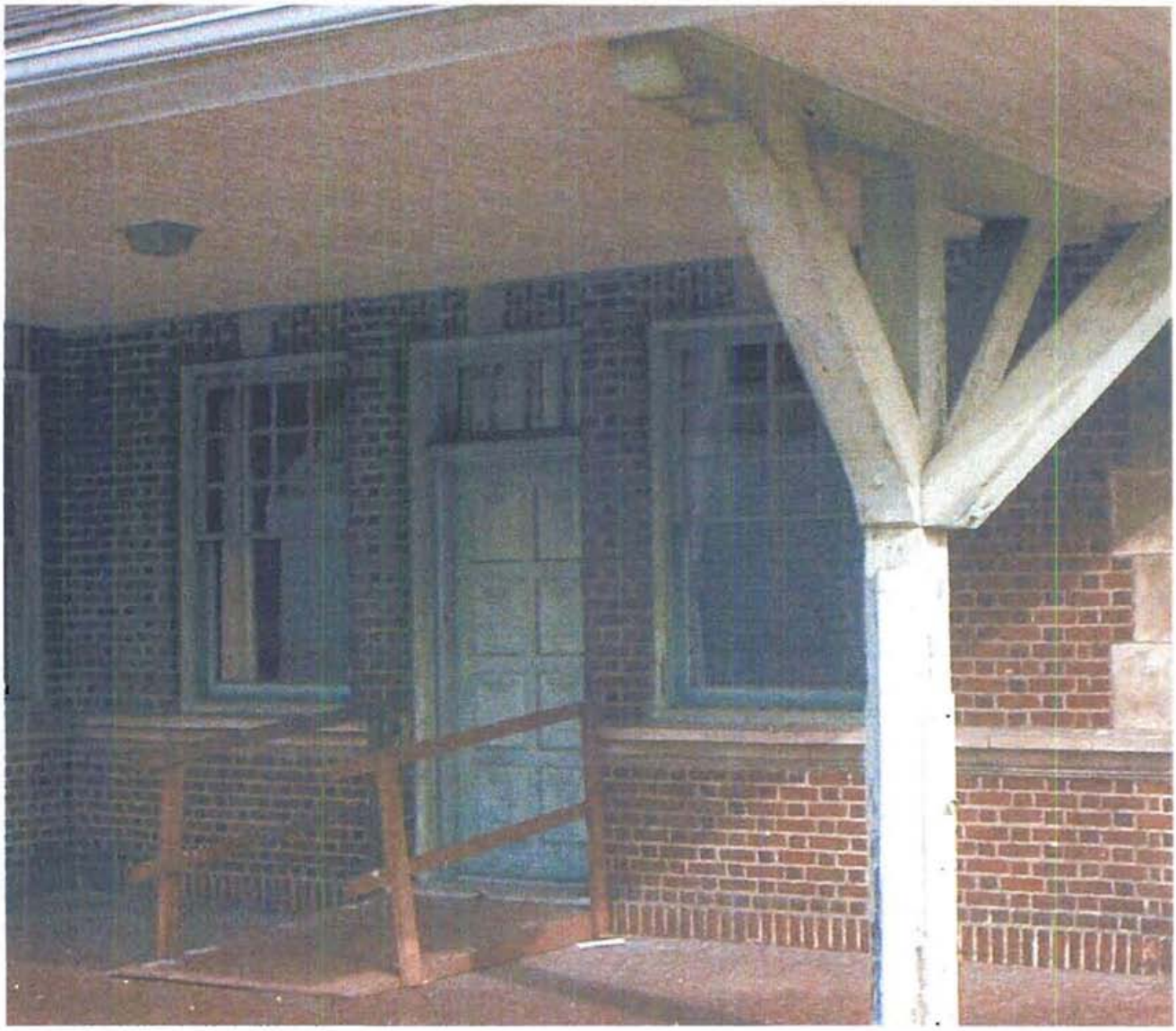
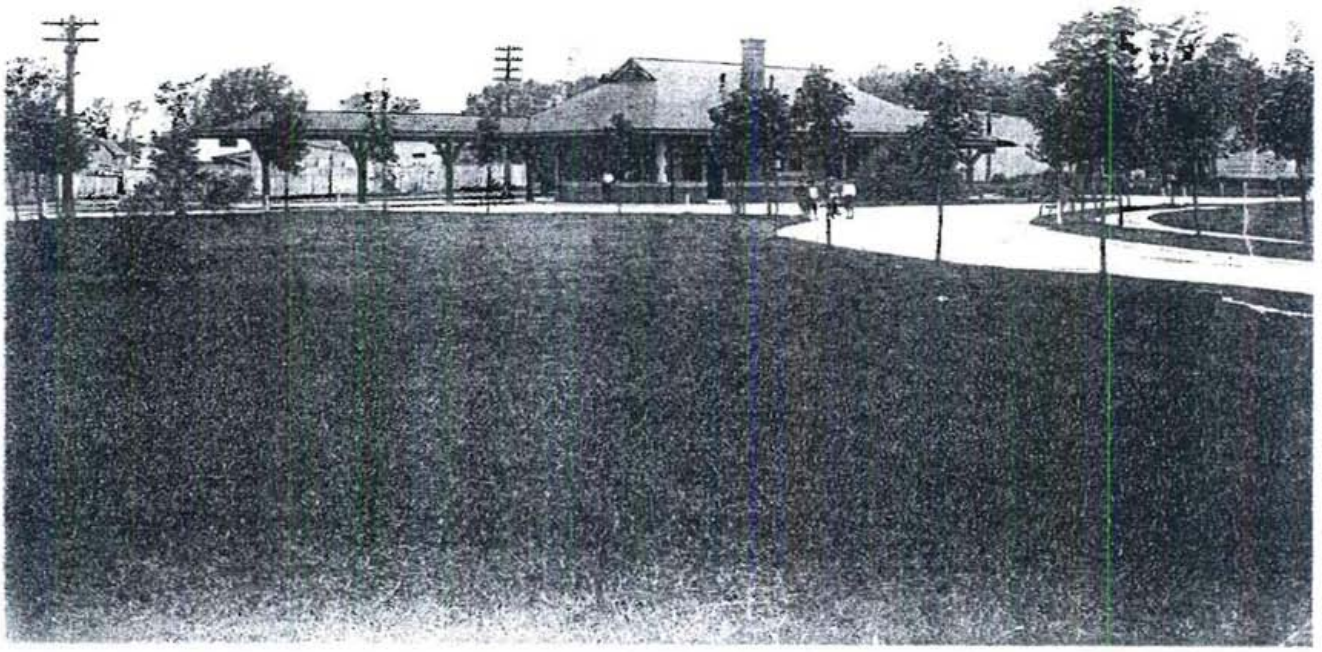


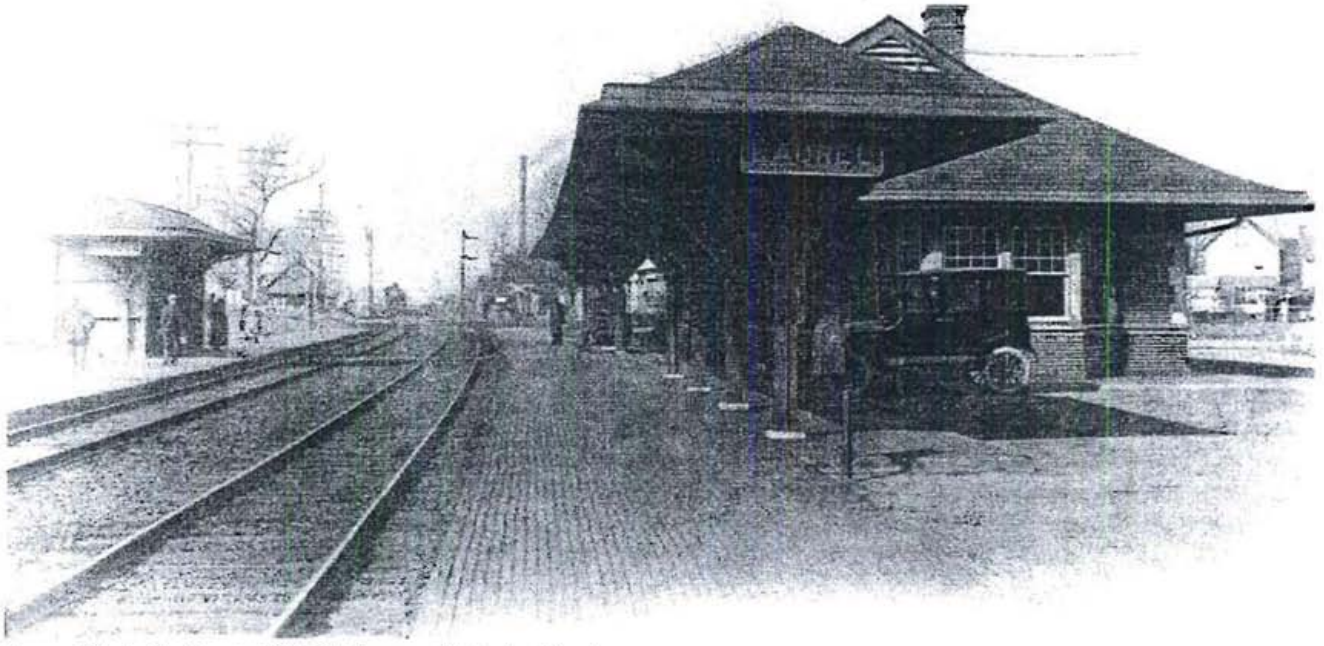
Photo-22

• Accessibility Issues

The first floor is approximately 7" above the surrounding exterior brick paving. A temporary wood ramp and railing provided handicapped access to the buildingwhen it was previosly used as the Town Hall. New ADA compliant ramps and hand railings will have to be constructed.
(See Photo 22)



Laurel Train Station c. 1915 (Delaware State Archives)



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